AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Appln. No.: 10/552,824

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

(Currently amended): A code conversion method for converting first code string data

into second code string data, the method comprising the steps of:

decoding the first code string data with a first speech decoding circuit to generate a first

decoded speech;

correcting signal characteristics of the first decoded speech to generate a second decoded

speech; and

encoding the second decoded speech in accordance with the a second speech coding

scheme to generate the second code string data.

2. (Original): The code conversion method according to claim 1, wherein in the step of

generating the second decoded speech, the signal characteristics are corrected by a filter having

characteristics which vary in accordance with characteristics of the first decoded speech.

3. (Currently amended): The method according to claim 2, wherein the characteristics of

the filter are varied using at least one of frame type information included in the first code string

data, size of the first code string data, and a characteristic amount representative speech

characteristic which can be calculated from the first decoded speech.

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4. (Original): The code conversion method according to claim 2 or 3, wherein the filter is an inverse filter to a post filter, an emphasis filter having characteristics for emphasizing highband components of frequency, or a filter which is a combination of the inverse filter and the emphasis filter.

- 5. (Currently amended): The code conversion method according to claim 1, wherein in the step of generating the second decoded speech, the signal characteristics of the first decoded speech are corrected into-by reducing signal characteristics suitable-which cause deterioration of the second decoded speech before for-re-encoding the first decoded speech.
- 6. (Original): The code conversion method according to claim 5, wherein in the step of generating the second decoded speech, the signal characteristics are corrected by a filter having characteristics which vary in accordance with characteristics of the first decoded speech.
- 7. (Currently amended): The method according to claim 6, wherein the characteristics of the filter are varied using at least one of frame type information included in the first code string data, size of the first code string data, and a characteristic amountrepresentative speech characteristic which can be calculated from the first decoded speech.
- (Original): The code conversion method according to claim 6 or 7, wherein the filter is an inverse filter to a post filter, an emphasis filter having characteristics for emphasizing high-

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band components of frequency, or a filter which is a combination of the inverse filter and the emphasis filter.

(Previously presented): A code conversion apparatus for converting first code string data into second code string data, the apparatus comprising:

a speech decoding circuit for decoding the first code string data to generate a first decoded speech;

a signal characteristic correcting circuit for correcting signal characteristics of the first decoded speech to generate a second decoded speech; and

a speech encoding circuit for encoding the second decoded speech to generate the second code string data.

- 10. (Original): The code conversion apparatus according to claim 9, wherein the signal characteristic correcting circuit corrects the signal characteristics of the first decoded speech by a filter having characteristics which vary in accordance with characteristics of the first decoded speech.
- 11. (Currently amended): The code conversion apparatus according to claim 10, wherein the characteristics of the filter are varied using at least one of frame type information included in the first code string data, size of the first code string data, and a characteristic amountrepresentative speech characteristic which can be calculated from the first decoded speech.

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12. (Original): The code conversion apparatus according to claim 10 or 11, wherein the filter is an inverse filter to a post filter, an emphasis filter having characteristics for emphasizing

high-band components of frequency, or a filter which is a combination of the inverse filter and

the emphasis filter.

13. (Currently amended): The code conversion apparatus according to claim 9, wherein

said signal characteristic correcting circuit corrects the signal characteristics of the first decoded

speech into by reducing signal characteristics suitable which cause deterioration of the second

decoded speech before for re-encoding the first decoded speech to generate the second decoded

speech.

14. (Original): The code conversion apparatus according to claim 13, wherein the signal

characteristic correcting circuit corrects the signal characteristics of the first decoded speech by a

filter having characteristics which vary in accordance with characteristics of the first decoded

speech.

15. (Curently amended): The code conversion apparatus according to claim 14, wherein

the characteristics of the filter are varied using at least one of frame type information included in

the first code string data, size of the first code string data, and a characteristic

amountrepresentative speech characteristic which can be calculated from the first decoded

speech.

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16. (Original): The code conversion apparatus according to claim 14 or 15, wherein the filter is an inverse filter to a post filter, an emphasis filter having characteristics for emphasizing high-band components of frequency, or a filter which is a combination of the inverse filter and the emphasis filter.

17. (Currently amended): A <u>tangible computer readable medium having stored therein a</u> program for causing a computer to execute <u>a method of code conversion</u>, the program including computer executable instructions for performing the steps of:

decoding a first code string data to generate a first decoded speech;

correcting signal characteristics of the first decoded speech to generate a second decoded speech; and

encoding the second decoded speech to generate a second code string data .

18. (Currently amended): A <u>tangible computer readable medium having stored therein a</u> program for causing a computer to execute <u>a method of code conversion</u>, the program including <u>computer executable instructions for performing</u> the steps of:

decoding a first code string data eonforming to a first speech coding scheme to generate a first decoded speech;

correcting signal characteristics of the first decoded speech using a filter having characteristics which vary in accordance with characteristics of the first decoded speech to generate a second decoded speech; and

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encoding the second decoded speech in accordance with a second speech coding scheme to generate a second code string data conforming to the second speech coding scheme.

19. (Currently amended): A <u>tangible computer readable medium having stored therein a</u> program for causing a computer to execute <u>a method of code conversion</u>, the program including computer executable instructions for performing the steps of:

decoding a first code string data to generate a first decoded speech;

correcting signal characteristics of the first decoded speech into-by reducing signal characteristics suitable which cause deterioration of the second decoded speech before for reencoding the first decoded speech to generate the second decoded speech; and encoding the second decoded speech to generate the second code string data.

20. (Currently amended): A <u>tangible computer readable medium having stored therein a</u> program for causing a computer to execute <u>a method of code conversion</u>, the program including computer executable instructions for performing the steps of:

decoding a first code string data to generate a first decoded speech;

correcting signal characteristics of the first decoded speech into by reducing signal characteristics suitable which cause deterioration of the second decoded speech before for reencoding the first decoded speech, using a filter having characteristics which vary in accordance with characteristics of the first decoded speech, to generate a second decoded speech signal; and encoding the second decoded speech to generate the second code string data.

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- 21. (Currently amended): The tangible computer readable medium having stored therein a program according to claim 18, wherein the characteristics of the filter are varied using at least one of frame type information included in the first code string data, size of the first code string data, and a characteristic amountrepresentative speech characteristic which can be calculated from the first decoded speech ..
- 22. (Currently amended): The tangible computer readable medium having stored therein a program according to claim 18, wherein the filter is an inverse filter to a post filter, an emphasis filter having characteristics for emphasizing high-band components of frequency, or a filter which is a combination of the inverse filter and the emphasis filter.
- 23. (Currently amended): The tangible computer readable medium having stored therein a program according to claim 21, wherein the filter is an inverse filter to a post filter, an emphasis filter having characteristics for emphasizing high-band components of frequency, or a filter which is a combination of the inverse filter and the emphasis filter.
- 24. (Currently amended): A tangible computer readable medium having stored therein a program for causing a computer to execute a method of code conversion, the program including computer executable instructions for performing the steps of:

decoding a first code string data to generate a first decoded speech;

correcting signal characteristics of the first decoded speech into by reducing signal characteristics suitable-which cause deterioration of the second decoded speech before for-re-

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encoding the first decoded speech, using a filter having characteristics which vary in accordance with characteristics of the first decoded speech, to generate a second decoded speech signal;

encoding the second decoded speech to generate the second code string data conforming to the second speech coding scheme; and

varying the characteristics of the filter using at least one of frame type information included in the first code string data, size of the first code string data, and a characteristic amountrepresentative speech characteristic which can be calculated from the first decoded speech.

- 25. (Currently amended): The <u>tangible computer readable medium having stored therein a program according to claim 20</u>, wherein the filter is an inverse filter to a post filter, an emphasis filter having characteristics for emphasizing high-band components of frequency, or a filter which is a combination of the inverse filter and the emphasis filter.
- 26. (Currently amended): The <u>tangible computer readable medium having stored therein a program according to claim 24</u>, wherein the filter is an inverse filter to a post filter, an emphasis filter having characteristics for emphasizing high-band components of frequency, or a filter which is a combination of the inverse filter and the emphasis filter.

27 Canceled.